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PATENT
(5181-75400/P5382)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/851,299
Filed: May 7, 2001
Inventor(s):
Whay S. Lee
Randall D. Rettberg

§ Examiner: Unknown
§ Group/Art Unit: 2151
§ Atty. Dkt. No: 5181-75400
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Title: Routing Scheme Using
Preferred Paths in a Multi-
Path Interconnection Fabric
in a Storage Network

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, Washington, DC 20231, on the date indicated below.

Robert C. Kowert

Name of Registered Representative

Robert C. Kowert
Signature

August 23, 2001
Date

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicant requests consideration of ☒ the references listed on the attached Form PTO-1449 and/or ☒ the additional information identified below in paragraph 3. A copy of each reference listed on the Form PTO-1449 is enclosed.

1. This Information Disclosure Statement is submitted:

- a. ☐ within 3 months of the filing date of a national application other than a continued prosecution application under § 1.53(d);
☐ within 3 months of the date of entry of the national stage as set forth in § 1.491 in an International application;
☒ before the mailing date of a first Office Action on the merits; or
☐ before the mailing of a first Office Action after the filing of a request for continued examination under § 1.114.
- b. ☐ after the events of above paragraph 1a and prior to the mailing date of a final Office Action or Notice of Allowance, and thus: ☐ the certification of paragraph 2 below is provided, or ☐ a fee of \$180.00 is enclosed.

- c. ☐ after the mailing date of a final Office Action or a Notice of Allowance and prior to payment of the issue fee, and thus: the certification of paragraph 2 below is provided and a fee of \$180.00 is enclosed.

2. It is hereby certified:

- ☐ that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or
- ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in § 1.56 (c) more than three months prior to the filing of the Statement.

3. ☒ Consideration of the following additional information (including any co-pending or abandoned U.S. applications, prior uses and/or sales, etc.) is requested:

U.S. Patent Application Serial No. 09/850,930 (5181-75500)
U.S. Patent Application Serial No. 09/755,479 (5181-68300)
U.S. Patent Application Serial No. 09/740,132 (5181-68600)
U.S. Patent Application Serial No. 09/740,130 (5181-73000)
U.S. Patent Application Serial No. 09/739,924 (5181-75300)

4. For each non-English language reference listed on the attached Form PTO-1449:

- ☐ reference is made to an English language translation submitted herewith, and/or
- ☐ reference is made to a foreign patent office search report (in the English language) submitted herewith, and/or
- ☐ reference is made to an English language translation of a foreign patent office search report submitted herewith, and/or
- ☐ reference is made to the concise explanation contained in the specification of the present application at page(s) _____, and/or
- ☐ reference is made to the concise explanation set forth below:

5. ☐ Applicant also offers the following comments for the Examiner's consideration:

6. ☐ Also enclosed is a copy of a foreign search report citing these references.

7. ☐ The listed documents were brought to the attention of the Applicant(s) after payment of the issue fee in the captioned case. The documents were cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. Applicant(s) request this Information Disclosure Statement and attached Form PTO-1449 be placed in the file of the captioned application.

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8. ☐ Applicant(s) requests that the Information Disclosure Statement and attached Form PTO-1449 and references, which are being filed before the grant of the patent and pursuant to 37 C.F.R. § 1.97(i), be placed in the file of the captioned application.

If any required fees are missing, the Commissioner is authorized to charge said fees to Conley, Rose & Tayon, P.C. Deposit Account No. 50-1505/5181-75400/RCK.

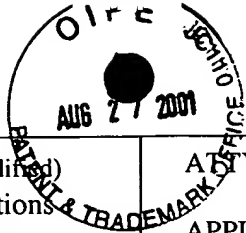
Respectfully submitted,



Robert C. Kowert
Reg. No. 39,255
Attorney for Applicant(s)

CONLEY, ROSE & TAYON, P.C.
P. O. Box 398
Austin, Texas 78767
(512) 476-1400

Date: August 23, 2001



Form PTO-1449 (modified)
List of Patents and Publications
For Applicant's Information
Disclosure Statement
(Use several sheets if necessary)

ATTY. DKT. NO. 5181-75400

APPLICANT: Lee, et al.

FILING DATE: May 7, 2001

SERIAL NO. 09/851,299

GROUP: 2151

U.S. PATENT DOCUMENTS

| EXAM. INITIALS | REF. DES. | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS | FILING DATE IF APPROPRIATE |
|----------------|-----------|-----------------|----------|---------------------|-------|-----------|----------------------------|
| | A1 | 6,016,510 | 1/18/00 | Quattromani, et al. | | | |
| | A2 | 6,023,753 | 2/8/00 | Pechanek, et al. | | | |
| | A3 | 5,689,661 | 11/18/97 | Hayashi, et al. | | | |
| | A4 | 6,167,502 | 12/26/00 | Pechanek, et al. | | | |
| | A5 | 6,101,181 | 8/8/00 | Passint, et al. | | | |
| | A6 | 5,720,025 | 2/17/98 | Wilkes, et al. | | | |
| | A7 | 5,970,232 | 10/19/99 | Passint, et al. | | | |
| | A8 | 6,055,618 | 4/25/00 | Thorson | | | |
| | A9 | 5,701,416 | 12/23/97 | Thorson, et al. | | | |
| | A10 | 5,737,628 | 4/7/98 | Birrittella, et al. | | | |
| | A11 | 5,689,646 | 11/18/97 | Thorson | | | |
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FOREIGN PATENT DOCUMENTS

| EXAM. INITIALS | REF. DES. | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB CLASS | TRANSLATION YES/NO |
|----------------|-----------|-----------------|---------|---------|-------|-----------|--------------------|
| | A12 | 99/26429 | 5/27/99 | WO | | | |
| | A13 | 0 785 512 | 7/23/97 | EP | | | |
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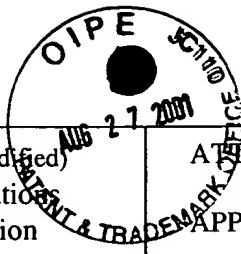
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|--|-----|---|
| | A14 | Bradley Kuszmaul, Mercury Computer Systems, Inc., "The RACE Network Architecture," (posted at www.mc.com/techlit/#tech_brief prior to this), 6 pages. |
| | A15 | R.Y. Wang, T.E. Anderson and D.A. Patterson, "Virtual Log Based File Systems For a Programmable Disk," Proc. Third Symposium on Operating Systems Design and Implementation, February 1999 (Also appeared as University of California Technical Report CSD-98-1031, 16 pages. |
| | A16 | Prasant Mohapatra, "Wormhole Routing Techniques for Directly Connected Multicomputer Systems, ACM Computing Surveys, Vol. 30, No. 3, September 1998, 37 pages. |
| | A17 | Christopher Glass and Lionel Ni, "The Turn Model for Adaptive Routing," Journal of the Association for Computing Machinery, Vol. 41, No. 5, September 1994, pp. 874-902. |

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DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.



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|---|---|--------------------------------------|
| Form PTO-1449 (modified) List of Patents and Publications For Applicant's Information Disclosure Statement (Use several sheets if necessary) | ATTY. DKT. NO. 5181-75400 APPLICANT: Lee, et al. FILING DATE: May 7, 2001 | SERIAL NO. 09/851,299 GROUP: 2151 |
|---|---|--------------------------------------|

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | |
|-----|---|
| A18 | Reddy, Dept. of Computer & Information Sciences, "A Dynamically Reconfigurable WDM LAN Based on Reconfigurable Circulant Graph," IEEE, 1996, 4 pages. |
| A19 | Various Abstracts beginning with Funahashi, Jouraku and Amano, "Adaptive Routing for Recursive Diagonal Torus," Transactions of the Institute of Electronics, Information and Communication Engineers D-I, vol. J83D-I, no. 11, November 2000, pp. 1143-53. |
| A20 | Milan Kovacevic, Center for Telecommunications Research, "On Torus Topologies with Random Extra Links," IEEE 1996, pp. 410-418. |
| A21 | Dally, et al., The Torus Routing Chip, Distributed Computing, Springer-Verlag 1986, pp. 187-196. |
| A22 | Susan Hinrichs, "A Compile Time Model for Composing Parallel Programs," IEEE Parallel and Distributed Technology, 1995, 19 pages. |
| A23 | "CRAY T3D System Architecture Overview Manual," ftp://ftp.cray.com/product-info/mpp/T3D_Architecture_Over/T3D.overview.html , Cray Research, 1993, 40 pages. |
| A24 | Marco Fillo, et al., "The M-Machine Multicomputer," Laboratory for Computer Science, Massachusetts Institute of Technology, A.I. Memo No. 1532, Ann Arbor, March 1995, 14 pages. |
| A25 | Noakes, et al., "The J-Machine Multicomputer: An Architectural Evaluation," Proceedings of the 20 th International Symposium on Computer Architecture, May 1993, 12 pages. |
| A26 | Dally, et al., "Architecture of a Message-Driven Processor," International Conference on Computer Architecture, June 1987, pp. 189-196. |
| A27 | Dennison, Lee and Dally, "High-Performance Bidirectional Signalling in VLSI," Massachusetts Institute of Technology, October 12, 1992, 20 pages. |
| A28 | Dally, et al., "Architecture and Implementation of the Reliable Router," Mass. Institute of Technology, Proceedings of Hot Interconnects II, Stanford CA, August 1994, 12 pages. |
| A29 | Dally, et al., "The Reliable Router: A Reliable and High-Performance Communication Substrate for Parallel Computers," Proceedings of the First International Parallel Computer Routing and Communication Workshop, Seattle WA, May 1994, 15 pages. |
| A30 | Dennison, et al., "Low-Latency Plesiochronous Data Retiming," Mass. Institute of Technology, Proceedings of the 1995 Advanced Research in VLSI Conference, Chapel Hill NC, March 1995, 12 pages |
| A31 | Whay S. Lee, "Mechanism for Efficient, Protected Messaging," Massachusetts Institute of Technology, Dept. of Electrical Engineering and Computer Science, January 20, 1999, 147 pages. |
| A32 | Dennison, "Reliable Interconnect Networks for Parallel Computers," Mass. Institute of Technology, Dept. of Electrical Engineering and Computer Science, April 18, 1991, 79 pages. |
| A33 | Thucydides Xanthopoulos, "Fault Tolerant Adaptive Routing in Multicomputer Networks," Dept. of Electrical Engineering and Computer Science, Mass. Institute of Technology, January 20, 1995, 152 pages. |
| A34 | Dennison, "The Reliable Router: An Architecture for Fault Tolerant Interconnect," Dept. of Electrical Engineering and Computer Science, Mass Institute of Technology, May 24, 1996, 145 pages. |

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DATE CONSIDERED:

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U.S. PATENT DOCUMENTS

| EXAM. INITIALS | REF. DES. | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB CLASS | FILING DATE IF APPROPRIATE |
|-------------------|--------------|-----------------|------|------|-------|--------------|-------------------------------|
|-------------------|--------------|-----------------|------|------|-------|--------------|-------------------------------|

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

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